

# 3-D Thursdays!

## "Three-Dimensional" Series for Rural K-12 Educators

● Professional Development

● Networking

● NGSS Connections

## First Thursday of Each Month

### Upcoming: May 4<sup>th</sup> at 7:00 pm Central Time

With hosts Dr. Rachael Arens, Research Associate at NASA/NAU PLANETS and Luke Henke, Albert Einstein Distinguished Educator Fellow at NASA

*Did you know there are two solar eclipses crossing the United States in 2023 and 2024? Join us as astronomers Dr. Marc Buie and Dr. John Keller talk about the science of occultations and how this work is supporting the NASA Lucy mission. They will also introduce the unique citizen science network known as RECON (the Research and Education Collaborative Occultation Network) that involves rural high schools studying outer solar system objects through occultations. The NASA SciAct project titled "Science Through Shadows" will include flat screen and full dome videos on the science of eclipses, occultations, and transits for use in classrooms, libraries, and planetariums around the country.*

## Special Guests



### Dr. Marc Buie

Dr. Marc Buie was a graduate of the Lunar and Planetary Laboratory at the University of Arizona in 1984. He then completed a post-doctoral fellowship at the University of Hawaii, worked at the Space Telescope Science Institute, moved to the Lowell Observatory, and now works at the Southwest Research Institute in Boulder, CO.

Pluto was a central theme of Buie's research starting in graduate school, culminating in the New Horizons flyby. He discovered the extended mission target, Arrokoth, and led successful occultation campaigns that showed Arrokoth was a contact binary prior to the New Horizons flyby.

Much of his efforts these days are directed at detailed studies of small bodies ranging from near-Earth asteroids to Kuiper Belt objects and Lucy mission targets using occultations that are now made possible by the Gaia astrometric star catalog.

### Dr. John Keller

Dr. John Keller is a Teaching Professor of Distinction in Astrophysical and Planetary Sciences and Director of Fiske Planetarium at the University of Colorado Boulder. Keller taught high school science and helped run a middle school astronomy education center for roughly a decade before pursuing his PhD in Planetary Science at the University of Arizona. During the past five years at CU Boulder and ten years prior at Cal Poly San Luis Obispo, Keller has been heavily involved in STEM teacher preparation along with citizen science efforts involving high schools in rural parts of the western US to study asteroids in the outer Solar System. Keller is the Science PI for a NASA Science Activation project titled "Science through Shadows."



Partner



Register at: <https://forms.gle/Uig6arQDBMJChQnU9>